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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
Revision of Rules)
for the Direct Broadcast)
Satellite Service)
)

IB Docket No. 95-168
PP Docket No. 93-253

To: The Commission

COMMENTS OF CTA INCORPORATED

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SUMMARY

CTA INCORPORATED ("CTA") supports the Commission's decision to reassign, on an expedited basis, the spectrum resources previously assigned to Advanced Communications Corporation for use in the Direct Broadcasting Satellite ("DBS") service. CTA agrees with the Commission's conclusion that the use of competitive bidding is the method that best serves the public interest for reassigning these DBS channels.

CTA is concerned, however, that the Commission has chosen to structure its proposed DBS auction rules in a manner that will result in a less than optimal use of the spectrum, and in a manner that will make it difficult, if not impossible, for small and medium-sized companies, and for companies owned by members of minority groups and/or women, to be competitive in the auctions. CTA cautions the Commission against abandoning fundamental constitutional and statutory values in its haste to expedite the delivery of DBS service to the public.

Specifically, CTA urges the Commission to reconsider its proposal to auction the reclaimed DBS spectrum in large channel blocks. Because of the development of digital compression techniques, the provision of competitive DBS service using far less than a full 32-channel allocation is eminently viable. Indeed, DBS systems

utilizing smaller spectrum allocations can employ small satellite technology, at considerable savings with regard to both spacecraft and launch costs, in turn reducing ultimate service costs to consumers.

By restructuring its auction format to auction permits representing one-half of the overall capacity at each orbital slot, and by adopting the use of simultaneous, multiple round auctions, the Commission can accomplish its goals for expeditiously making DBS service available and ensuring that the licenses are awarded to those who value them most, while at the same time providing opportunities for small businesses, women and minorities.

CTA also urges the Commission to take the additional steps necessary to adopt policies that will promote the participation of small businesses, women and minorities ("Designated Entities") in the DBS auctions. CTA notes that given the long history of discrimination against women and minorities in the broadcast media, that Designated Entity preferences for DBS spectrum would be likely to meet the Supreme Court's "strict scrutiny" standard for these preferences. CTA specifically urges the Commission to: (1) set aside one 14-channel block at 110° and one 12-channel block at 148° solely for Designated Entities; provide bidding credits for bids submitted by Designated Entities; and (3) allow for installment payments on favorable interest

CTA supports the Commission's efforts to limit the concentration of firms providing DBS service, including proposed Commission limits on the ownership of DBS licenses by entities affiliated with multichannel video programming distributors. CTA agrees that limits should be imposed on DBS operators holding significant numbers of channels at other full-CONUS locations, and suggests that the Commission's proposed cap be reduced from 16 to 8 channels.

Finally, CTA supports the Commission's proposal to extend the license term for non-broadcast DBS to ten years; longer license terms will encourage investment and innovation in the DBS service.

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CTA INCORPORATED ("CTA") through its attorneys, hereby files its comments in response to the Notice of Proposed Rulemaking ("NPRM") in the above-captioned proceeding.^{1/}

I. INTRODUCTION

CTA is a minority-owned, privately-held aerospace company with extensive experience in the design, development and manufacture of small communications satellites, space systems, and ground systems for satellite operations. A CTA subsidiary, CTA Commercial Systems, Inc., is an applicant in the second processing round for Non-Voice, Non-Geostationary satellite systems.^{2/} CTA is keenly interested both in

^{1/} FCC 95-443, October 30, 1995.

^{2/} See File No. 23-SAT-P/LA-95.

becoming a licensee in the direct broadcast satellite ("DBS") service, and in manufacturing state-of-the-art spacecraft for other licensees.

CTA supports the Commission's decision to reassign, on an expedited basis, the spectrum resources previously assigned to Advanced Communications Corporation ("ACC") for use in the DBS service.^{3/} CTA agrees with the Commission's conclusion that the use of competitive bidding is the method that best serves the public interest for reassigning the DBS channels reclaimed from ACC.^{4/}

CTA is concerned, however, that the Commission has chosen to structure its proposed DBS auction rules in a manner that will result in a less than optimal use of the spectrum, and in a manner that will make it difficult, if not impossible, for small and medium-sized companies, and for companies owned by members of minority groups and/or women, to be competitive in the auctions. As CTA describes below, the Commission can accomplish its goals for expeditiously making DBS service available,^{5/} while at the

^{3/} See Advanced Communications Corp., FCC 95-428 (adopted Oct. 16, 1995) ("Advanced Order").

^{4/} NPRM at ¶ 16.

^{5/} In the Advanced Order, the Commission identified three important policy goals for the DBS service: (1) efficient use of a valuable public spectrum resource; (2) promotion of DBS as a competitor to cable television systems; and (3) prompt delivery of DBS
(continued...)

same time providing opportunities for small businesses, women, and minorities to participate in the provision of this important mass media service.

II. THE COMMISSION'S ASSUMPTIONS REGARDING THE "CRITICAL MASS" OF COLOCATED CHANNELS NEEDED FOR A COMPETITIVE DBS SYSTEM ARE INCORRECT.

The Commission has proposed to auction just two permits, each of which will cover all channels available at one of two orbital positions: 28 channels at 110° and 24 channels at 148°. ^{5/} As outlined in the NPRM, the Commission does not currently plan to divide these blocks of channels into smaller parcels or to auction each channel individually. ^{7/} The Commission justifies this proposal by arguing that DBS channels are "most effectively utilized when they are available in a substantial quantity at a given orbital location," and that "the more channels a DBS

^{5/} (...continued)
service to the public. Advanced Order at ¶ 67. In the NPRM, the Commission added to this list two public interest factors identified by Congress when it gave the Commission the authority to auction licenses: (1) recovery for the public of a portion of the value of the public spectrum; and (2) avoidance of unjust enrichment through the methods employed to award uses of that resource. NPRM at ¶ 14.

^{6/} NPRM at ¶ 79.

^{7/} Id.

operator has at a particular location, the greater its capacity to offer competitive DBS service."^{8/}

The Commission is correct that, when the use of older, analog technologies was prevalent, the allocation of essentially all 32 channels available at a given location might have been necessary to ensure the expedited delivery of competitive DBS service. As the Commission is aware, however, the advent of digital technology has dramatically changed the calculus used to determine how much spectrum is required to support the provision of a particular service.^{2/}

With the development of digital compression techniques, the provision of DBS service using far less than a full 32-channel allocation is eminently viable. By the Commission's own calculation, a ten-channel block would permit the delivery of up to 70 channels today, and perhaps as many as 200 over the course of the next five years. By any reasonable calculation, this is more than adequate "critical mass" to be competitive with a cable system or another DBS system. Dividing an orbital slot's overall channel allocation into thirds (or halves) for purposes of

^{8/} Id.

^{2/} In the Advanced Order, the Commission noted that, with digital compression, each "channel" currently can yield up to seven channels of consumer programming, and it anticipates that a twenty-to-one compression ratio should be feasible by the end of this decade. See Advanced Order at ¶ 5.

assignment would create the possibility of two or more competitors at each orbital location, which should be especially attractive for the Commission, given its concern regarding the limited number of full CONUS orbital positions available to U.S. licensees and concentration of control in the DBS industry.

In addition, DBS systems utilizing smaller spectrum allocations can employ small satellite ("smallsat") technology, at a considerable savings with regard to both spacecraft and launch costs, in turn reducing ultimate service costs to the consumer. CTA believes that a vigorously competitive DBS service can be established using smallsat technology with less than half of the full 32-channel complement available at each orbital location.

For example, CTA is designing and developing a smallsat DBS system for Indonesia, known as "Indostar," which will deploy four satellites at an aggregate cost of \$100 million. In the configuration selected for this service, each satellite will have five transponders, three dedicated to television and two for digital radio applications. With multiplexing and digital compression technology, the satellites will be able to offer 8 channels of television service per transponder, for a total of 35 channels per satellite, all at a fraction of the cost of building a large satellite network. In the U.S. context, if

fourteen DBS channels were available at a full-CONUS orbital position (e.g., one-half of the 28 available at 110°, three smallsats could be colocated, and, using today's compression ratios, the system could provide approximately 120 video channels, at a cost of some \$75 million; by the end of the decade, the same colocated three-satellite constellation could be providing upwards of 280 programming channels.

In light of the many technological advances that have had a profound influence on the provision of DBS service, CTA urges the Commission to reconsider its proposal to auction the reclaimed DBS spectrum in large channel blocks. As is described in more detail below, CTA recommends that the Commission package the channels at 110° in blocks of fourteen, and the channels at 148° in blocks of twelve.

III. ASSIGNING DBS SPECTRUM IN SMALLER PARCELS THROUGH SIMULTANEOUS, MULTIPLE ROUND AUCTIONS WOULD RESULT IN THE AWARD OF LICENSES TO THOSE THAT VALUE THEM MOST.

Rather than assuming that the maximum number of channels available at a given orbital location represents the "optimal" number for the provision of DBS, the Commission should adopt an auction format that would allow market forces to determine the value of the spectrum and the appropriate aggregation of channels. As CTA has demonstrated, a highly competitive DBS system can be

fashioned from as few as ten channels, particularly if the Commission's forecast that twenty-to-one compression ratios will be realized within the next five years proves accurate. In these circumstances, simultaneous multiple round auctions, in which the channels at both 110° and 148° are auctioned in blocks representing one-half the overall capacity available would best accomplish this objective.

In the NPRM, the Commission rejects the use of simultaneous, multiple round auctions for the DBS channels in part because it concludes that the channels in the two different orbital locations are not interdependent, and that nothing much would be gained from such simultaneous auctions.^{10/} However, within each orbital slot, the channels are highly interdependent. As the Commission has noted previously, simultaneous multiple round actions are more likely to award interdependent licenses to those who value them most,^{11/} and the magnitude of the advantages of simultaneous multiple round bidding is highest, where, as in this case, the licenses are complementary, such that they may be worth more as part of a package than individually.^{12/}

^{10/} NPRM at ¶ 80.

^{11/} See Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, Second Report and Order, 9 F.C.C. Rcd. 2348 (1994) ("Second R&O") at ¶ 89.

^{12/} Id. at ¶ 91

By requiring bidding on individual channels or smaller parcels of channels in simultaneous auctions, the Commission would be likely to increase revenues from the auction, by increasing the number of bidders and by forcing up the price to acquire all of the channels together. Finally, simultaneous multiple round auctions are likely to raise more revenue than sequential auctions because they mitigate the effect of the winner's curse.^{13/}

A simultaneous multiple round auction would allow smaller entities to participate in the bidding, while still allowing large entities to aggregate all channels available at a given orbital location. CTA urges the Commission not to impose its own view of an "optimal" DBS system size, but rather to allow advancing technology and the market to determine how the channels should be divided, and at what price.

IV. THE COMMISSION SHOULD ADOPT DESIGNATED ENTITY PREFERENCES FOR ITS DBS SPECTRUM AUCTIONS.

A. The Commission Should Not Ignore Its Mandate To Ensure That Designated Entities Participate In The Provision Of Communications Services.

Congress, as part of the 1993 Omnibus Budget Reconciliation Act, directed the Commission to design and

^{13/} Id. at ¶ 83. As the Commission has noted, multiple round bidding tends to increase auction revenues by reducing the incentive of bidders to shade down bids to avoid the winner's curse.

test multiple alternative methodologies for competitive bidding systems, and to promote a number of objectives, including:

promoting economic opportunity and competition and ensuring that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women.^{14/}

Despite this mandate, the NPRM declined to adopt special provisions to assist small businesses, women, and minorities ("Designated Entities") in bidding on the DBS spectrum reclaimed from ACC.^{15/} In making this determination, the Commission cited its concern about prompt delivery of service to the public, noting that the costs of implementing satellite systems "have been a significant obstacle to new entrants," and that the "high costs have often led to unsuccessful and prolonged attempts to obtain financing, while service to the public is delayed and other qualified applicants are precluded from participating."^{16/}

However, the Commission needs to balance its goals of providing rapid service to the public with other public interest goals, including the participation of Designated

^{14/} 47 U.S.C. § 309(j) (3) (B) .

^{15/} NPRM at ¶ 106.

^{16/} Id.

Entities in the electronic mass media fields. As a minority-owned enterprise that has been at the cutting edge of the design, development and deployment of smallsats, including DBS systems, CTA stands as proof that Designated Entities are in a position to develop competitive DBS systems. The Commission has not provided any evidence that Designated Entities could not raise the revenues necessary to implement such systems. Indeed, as Commissioner Barrett points out in his separate statement in the NPRM, while individual Designated Entities may not have the resources to meet the challenges inherent in the development and deployment of complex satellite systems, consortia of small businesses and/or other Designated Entities may well be in a position to participate in this service.

CTA urges the Commission to: (1) set aside one 14-channel block at 110° and one 12-channel block at 148° solely for Designated Entities; (2) provide bidding credits for bids submitted by Designated Entities; and (3) allow for payment for licenses won at auction by Designated Entities to be made using installment payments with favorable interest terms.

**B. Designated Entity Preferences For DBS Spectrum
Would Disseminate Broadcast Licenses To Minorities
And Could Meet The Supreme Court's
"Strict Scrutiny" Standard.**

As a result of the Supreme Court's decision in Adarand v. Pena,^{17/} the Commission abandoned preferences for women and minorities in its PCS C block auction, noting that the time required for gathering the necessary evidence that would be required to meet the Supreme Court's strict scrutiny standard would necessitate a further delay in holding the auction, a delay that would put the C block winners at a greater competitive disadvantage vis-a-vis existing wireless carriers.^{18/} In its decision abandoning these preferences, however, the Commission stressed its continued commitment to the goal of ensuring broad participation in telecommunications by women- and minority-owned businesses, and noted that its actions did not

^{17/} 115 S.Ct. 2097 (1995) ("Adarand"). In Adarand, the Supreme Court held that "all racial classifications . . . must be analyzed by a reviewing court under strict scrutiny," and specifically that any federal program that makes distinctions on the basis of race must serve a compelling governmental interest and must be narrowly tailored to serve that interest.

^{18/} See In the Matter of Implementation of Section 309(j) of the Communications Act - Competitive Bidding, Sixth Report and Order, 78 RR 2d 934 (1995) "Sixth R&O" at ¶ 6. Indeed, the Commission concluded that women and minorities would be better served, and the Congressional mandate to provide opportunities to these entities would be more likely to be met, if the Commission eliminated its preferences and moved expeditiously to hold the auction. Id. at ¶ 7.

indicate that such measures would be inappropriate for future spectrum auctions.^{19/}

Unlike other services in which the Commission has sought to provide enhanced opportunities for the participation of designated entities, DBS is a content-based, broadcast-type service, making the case for providing designated entity preferences even more compelling. The Commission has long recognized that minorities and women have been excluded from the broadcast industry, and that the viewing and listening public suffers as a result of this exclusion.^{20/} Similarly, the Congress has found that the "effects of past inequities stemming from racial and ethnic discrimination have resulted in a severe underrepresentation of minorities in the media of mass communications."^{21/}

In the face of these inequities, the Commission cannot ignore the congressional mandate to offer opportunities to these entities to enter the broadcast field. As CTA has demonstrated above, there is no compelling public interest reason to deny Designated

^{19/} Id.

^{20/} See FCC Task Force Report 1; Wimmer, Deregulation and Market Failure in Minority Programming: The Socioeconomic Dimensions of Broadcast Reform, 8 Comm/Ent. L. J. 329, 426, n. 516 (1986).

^{21/} See H.R. Conf. Rep. No. 97-765, p. 43 (1982), noting that "the American public will benefit by having access to a wider diversity of information sources."

Entities a realistic opportunity to participate in the provision of DBS service. The Commission's stated reasons for structuring the allocation of DBS resources in a manner that would favor larger, established entities are undermined by advances in technologies that enable smaller, more affordable satellite systems to provide effective competition. Moreover, the long history of discrimination against minorities and women in the broadcast industry make it likely that any Commission preferences for DBS would be upheld under the strict scrutiny standard articulated by the Supreme Court in Adarand.

CTA urges the Commission not to sacrifice its goals of enhancing opportunities for small businesses, minorities, and women solely in an effort to expedite provision of DBS service to the public. The public interest would be far better served by an auction design that would promote not only rapid deployment of DBS, but also robust competition and diversity of DBS service providers. Finally, in the event that the Commission determines that an appropriate Adarand record cannot be compiled within a reasonable time frame, the Commission should, at the very least, adopt a small business/entrepreneur-type preference for the DBS auction.^{22/}

^{22/} Given the obvious differences between the DBS and PCS services, the relevant financial standards for such
(continued...)

V. THE COMMISSION HAS PROPOSED THE CORRECT APPROACH IN SEEKING TO LIMIT CONCENTRATION OF DBS SERVICE.

In the NPRM, the Commission seeks comments on a variety of service rules that, inter alia, seek to limit the concentration of DBS service into a few hands. CTA applauds these Commission efforts to promote competition in the provision of DBS service.

CTA supports the Commission proposal to limit the amount of DBS spectrum that can be controlled or used by DBS providers that are affiliated with any multichannel video programming distributor ("MVPD").^{23/} As the Commission notes, allowing MVPDs to control an unlimited number of full-CONUS channels could result in a lessening of competition among DBS providers and in the broader market for the distribution of multichannel video programming.^{24/}

CTA supports the Commission's proposal that any DBS licensee or operator affiliated with another MVPD be permitted to control or use DBS channel assignments at only one of the orbital locations capable of full-CONUS

^{22/} (...continued)
status need not necessarily be identical.

^{23/} NPRM at ¶ 33.

^{24/} Id. The Commission correctly concludes that, while multichannel video programming is currently delivered by various technologies which may not be perfect substitutes, the attributes of these technologies are similar enough to consider the services to be part of the same consumer market. Id. at ¶ 24, n.61.

transmissions.^{25/} This proposal would help to ensure diversity in the provision of DBS service, but would not prevent existing video distributors from participating in the DBS market.

CTA also supports the Commission's efforts to limit the concentration of channels among a few DBS operators.^{26/} As the Commission notes, given the scarcity of DBS resources, excessive concentration will impede competition.^{27/} The competitive provision of DBS service to the public would be enhanced by ensuring the entry of larger numbers of DBS providers.

Finally, CTA supports the Commission's suggestion that additional limitations should be imposed on DBS operators holding a significant number of channels at other full-CONUS locations. Specifically, CTA supports a prohibition against a licensee holding more than eight channels at one full-CONUS location from holding channels at any other full-CONUS location.

**VI. CTA SUPPORTS THE COMMISSION'S PROPOSAL
TO EXTEND THE LICENSE TERM FOR DBS TO TEN YEARS.**

CTA supports the Commission's proposal to extend the license term for non-broadcast DBS to ten years. In

^{25/} Id. at ¶ 40

^{26/} Id. at ¶ 41

^{27/} Id.

other proceedings currently before the Commission, CTA has voiced support for Commission proposals to reduce regulation by, inter alia, extending license terms.^{28/} CTA reiterates its support for the extension of license terms, where, as in the case of DBS, technology has resulted in the development of satellites and other equipment that may have useful lives well in excess of current FCC license terms. Indeed, as the Commission points out, technological evolution has resulted in the development of DBS satellites that may have useful lives in excess of ten years.^{29/} As the Commission notes, a longer license term will encourage investment and innovation in the DBS service by, inter alia, ensuring a longer time horizon in which to execute a business plan. A longer license term also would reduce regulatory burdens on the industry, and would free up scarce Commission resources.

CONCLUSION

CTA supports the Commission's proposal to move forward expeditiously to award available DBS spectrum by auction. However, CTA cautions the Commission against abandoning fundamental constitutional and statutory values

^{28/} See Comments of CTA INCORPORATED, In the Matter of Streamlining the Commission's Rules and Regulations for Satellite Application and Licensing Procedures, Notice of Proposed Rulemaking, FCC 95-285 (released August 11, 1995).

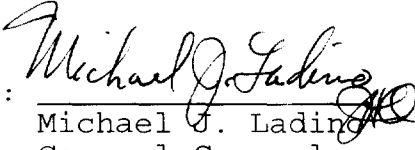
^{29/} NPRM at ¶ 70.

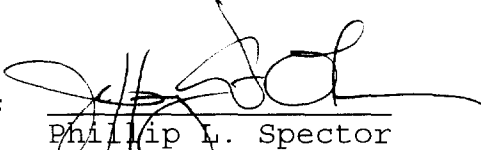
in its haste to expedite the delivery of new service. Any delay that attends the establishment of a rational, fully supported Designated Entity structure for the DBS auction will be time spent in the public interest. Particularly given the fact that state-of-the-art technology has undermined much of the Commission's predicate for not proposing to adopt such procedures in the first instance,

there can be no rational basis for not establishing an appropriate Designated Entity structure.

Respectfully submitted,

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